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EXAMINER	
ERB, NATHAN	

ART UNIT	PAPER NUMBER
3639	

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Please find below and/or attached an Office communication concerning this application or proceeding..

Office Action Summary	Application No.	Applicant(s)	
	10/091,859	ADLER, RICHARD M.	
	Examiner	Art Unit	
	Nathan Erb	3639	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 64-121 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 64-121 is/are rejected.

7)☒ Claim(s) 118 is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. Applicant's response to Office action was received on April 11, 2006.

3. In response to applicant's arguments in response to the 35 USC § 101 rejections from the previous Office action, all of those rejections have been withdrawn.

4. In response to applicant's arguments in response to the 35 USC § 102 rejections from the previous Office action, all of those rejections have been withdrawn. However, in response to applicant's new claims in the most recent amendment, new rejections under 35 USC § 102 can be found in this Office action (see below).

5. In response to applicant's arguments in response to the 35 USC § 103 rejections from the previous Office action, all of those rejections have been withdrawn. However, in response to applicant's new claims in the most recent amendment, new rejections under 35 USC § 103 can be found in this Office action (see below).

6. Applicant's amendment included preemptive arguments regarding the patentability of the new claims. Examiner has provided his opinion on the patentability of those claims in this Office action below.

Claim Objections

7. Claim 118 is objected to because of the following informalities:

a. In the fourth line of claim 118, please replace the phrase "simulated results" with --simulated outcome--.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claims 65, 99, 106-107, 110-111, 113-114, and 117-119 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As per **Claim 65**, on the second line of the claim, the phrase "a predefined model" appears. The phrase "a predefined model" appears above on the fourth line of claim 64, from which claim 65 either directly or indirectly depends. It is unclear whether the same or a different "predefined model" is being referred to.

As per **Claim 65**, on the second line of the claim, the phrase "a decision domain" appears. The phrase "a decision domain" appears above on the third line of claim 64, from which claim 65 either directly or indirectly depends. It is unclear whether the same or a different "decision domain" is being referred to.

As per **Claim 65**, claim 65 recites the limitation "the behavioral dynamics" in the eighth line of the claim. There is insufficient antecedent basis for this limitation in the claim.

As per **Claim 99**, claim 99 recites the limitation "the one or more analyses to perform" in the second line of the claim. There is insufficient antecedent basis for this limitation in the claim.

As per **Claim 106**, on the third line of the claim, the phrase "a decision domain" appears. The phrase "a decision domain" appears above on the second line of claim 106. It is unclear whether the same or a different "decision domain" is being referred to.

As per **Claim 106**, on the ninth and tenth lines of the claim, the phrase "a decision-support application" appears. The phrase "a decision-support application" appears above on the first line of claim 106. It is unclear whether the same or a different "decision-support application" is being referred to.

As per **Claim 106**, claim 106 recites the limitation "the decision model" in the fourth line of the claim. There is insufficient antecedent basis for this limitation in the claim.

As per **Claim 107**, claim 107 recites the limitation "the entities" in the third line of the claim. There is insufficient antecedent basis for this limitation in the claim.

As per **Claim 110**, claim 110 recites the limitation "the application-specific decision model" in the second line of the claim. There is insufficient antecedent basis for this limitation in the claim.

As per **Claim 111**, claim 111 recites the limitation "the relational schema" in the second line of the claim. There is insufficient antecedent basis for this limitation in the claim.

As per **Claim 111**, claim 111 recites the limitation "the application-specific model" in the fourth and fifth lines of the claim. There is insufficient antecedent basis for this limitation in the claim.

As per **Claim 113**, on the third line of the claim, the phrase "a decision domain" appears. The phrase "a decision domain" appears above on the first and second lines of claim 113. It is unclear whether the same or a different "decision domain" is being referred to.

As per **Claim 113**, claim 113 recites the limitation "the decision model" in the fourth line of the claim. There is insufficient antecedent basis for this limitation in the claim.

As per **Claim 114**, on the fourth line of the claim, the phrase "a decision domain" appears. The phrase "a decision domain" appears above on the third line of claim 114. It is unclear whether the same or a different "decision domain" is being referred to.

As per **Claim 114**, claim 114 recites the limitation "the decision model" in the fifth line of the claim. There is insufficient antecedent basis for this limitation in the claim.

As per **Claim 117**, on the first line of the claim, the phrase "an optimal strategy" appears. The phrase "an optimal strategy" appears above on the second line of claim 116, from which claim 117 either directly or indirectly depends. It is unclear whether the same or a different "optimal strategy" is being referred to.

As per **Claim 118**, claim 118 recites the limitation "the selected optimal strategy" in the fourth and fifth lines of the claim. There is insufficient antecedent basis for this limitation in the claim.

As per **Claim 119**, claim 119 recites the limitation "the decision domain" in the first line of the claim. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

10. Claims 64-68, 73-81, 89-90, 99-110, 112-116, and 119-121 are rejected under 35 U.S.C. 102(e) as being anticipated by Eder, U.S. Patent No. 6,321,205 B1.

As per **Claims 64 and 104-105**, Eder discloses:

- a computer-implemented method (or a computer system) for supporting decision-making (column 10, lines 25-40; column 46, line 46, through column 47, line 8);

- (means for) constructing a model of a decision domain for creating a plurality of scenarios in the decision domain, the model constructed based on a received selection of a predefined model from among a plurality of predefined models of decision domains (column 5, line 31, through column 6, line 25; shows the valuations used to create the reference's model;

there are known methods of performing valuations that the reference's valuation methods must have been chosen from);

- (means for) receiving user-specified baseline scenario parameters defining a baseline scenario (column 6, lines 44-64; reference's invention can calculate current valuation; the baseline scenario is the business's current state; the baseline scenario parameters are the data that define the current state of the business);

- scenario parameters defining one or more alternative scenarios (column 5, line 31, through column 6, line 25; column 6, lines 44-64; reference's invention can simulate future financial performance; reference's invention uses a mathematical model for business calculations; scenario parameters are the input data that define a particular possible future for which financial performance is being predicted);

- decision parameters defining one or more candidate decisions (column 6, lines 44-64; column 46, line 46, through column 47, line 8; decision parameters are those changes a manager has chosen to possibly make and for which a future simulation is being performed);

- wherein each scenario depicts a situation in the decision domain for which one or more candidate decisions potentially affecting the corresponding scenario parameters could be adopted, each of the one or more alternative scenarios represents a possible future into which the baseline scenario could evolve (column 46, line 46, through column 47, line 8; this is one of the basic concepts of the simulation; scenario parameters are the input data that define a particular possible future for which financial performance is being predicted);

- each candidate decision represents an intervention for influencing the alternative scenario parameters defining the one or more alternative scenarios (column 6, lines 44-64;

column 46, line 46, through column 47, line 8; scenario parameters are the input data that define a particular possible future for which financial performance is being predicted; for the reference's invention, the point of the simulations is to find out the effect of a possible management decision, so the scenario parameters represent the effects of a decision that could potentially be made by management);

- (means for) simulating, for one or more future time instants, each of the one or more alternative scenarios as influenced by each candidate decision represented by the candidate decision parameters and parameters characterizing assumptions in alternative scenarios (column 5, line 31, through column 6, line 25; column 6, lines 44-64; column 46, line 46, through column 47, line 8; decision parameters are those changes a manager has chosen to possibly make and for which a future simulation is being performed; the mathematical model of the simulations incorporates parameters characterizing assumptions in alternative scenarios);

- for each candidate decision represented by the candidate decision parameters, (means for) outputting simulation results based on the alternative scenario parameters corresponding to the simulated alternative scenarios at one or more future time instants (column 46, line 46, through column 47, line 8; scenario parameters are the input data that define a particular possible future for which financial performance is being predicted; results of the simulation can be displayed to the user; decision parameters are those changes a manager has chosen to possibly make and for which a future simulation is being performed);

- a machine-readable medium, having encoded thereon program code, wherein, when the program code is executed by a machine, the machine implements a method for supporting

decision-making (column 7, line 66, through column 8, line 25; column 9, line 41, through column 10, line 14).

As per **Claim 65**, Eder further discloses: wherein, for a user to construct a user-specified scenario, a predefined model for a decision domain defines one or more types of entities defining decision strategies in the decision domain (column 5, line 31, through column 6, line 25); one or more attributes for each entity type representing properties of the entity type (column 5, line 31, through column 6, line 25); one or more dynamic behaviors of decision strategies representing sources of change in the decision domain, the behavioral dynamics representing one or more ways entities change over time and interact with each other, the one or more dynamic behaviors being ascribed to one or more entity types that depict decision strategies (column 5, line 31, through column 6, line 25).

As per **Claim 66**, Eder further discloses: wherein the user-specified scenario parameters include entity parameters identifying a plurality of entities populating the scenario, wherein the entities are instances of the model's entity types (column 46, line 46, through column 47, line 8); attribute parameters characterizing one or more of the entities in the scenario (column 46, line 46, through column 47, line 8); relational parameters representing relationships between one or more entities in the scenario (column 46, line 46, through column 47, line 8).

As per **Claim 67**, Eder further discloses: wherein each of the one or more alternative scenarios corresponds to assumptions about one or more situational forces, trends, events, and

entity behaviors that drive a plausible alternative evolution of the baseline scenario over one or more future time instants (column 46, line 46, through column 47, line 8).

As per **Claim 68**, Eder further discloses: wherein the attribute parameters include performance metrics indicating one or more strengths and weaknesses of the one or more candidate decisions at one or more future time instants (column 46, line 46, through column 47, line 8).

As per **Claim 73**, Eder further discloses: wherein the simulation is based on situational dynamics including formulas characterizing changes in one or more alternative scenario parameters caused by one or more behaviors of one or more entities (column 5, line 31, through column 6, line 25; column 46, line 46, through column 47, line 8).

As per **Claim 74**, Eder further discloses: wherein the situational dynamics are specified as both pre-defined elements in the decision domain model and via user-specified attribute parameters (column 5, line 31, through column 6, line 25).

As per **Claim 75**, Eder further discloses: storing persistently, for each candidate decision represented by the candidate decision parameters, scenario parameters corresponding to baseline and alternative scenarios received in step (b) (column 8, line 26, through column 9, line 2).

As per **Claim 76**, Eder further discloses: storing persistently, for outputs produced by simulations of alternative scenarios and candidate decisions over one or more future time instants, all changes in scenario entities and attribute parameters of the scenario entities simulated in step (c) (column 8, line 26, through column 9, line 2; column 46, line 46, through column 47, line 8).

As per **Claim 77**, Eder further discloses: wherein step (d) comprises graphically displaying one or more summaries of changes in alternative scenario parameters corresponding to the simulated alternative scenarios over one or more future time instants for purposes of analyzing projected outcomes of simulated candidate decisions (column 46, line 46, through column 47, line 8).

As per **Claim 78**, Eder further discloses: wherein the summaries are produced in tabular report formats based on user-specified queries (Figure 14; column 46, line 46, through column 47, line 8).

As per **Claim 79**, Eder further discloses: wherein the summaries enable comparative analysis of one or more differences, strengths and weaknesses of candidate decisions in achieving desired results across alternative scenarios (Figure 14; column 46, line 46, through column 47, line 8).

As per **Claim 80**, Eder further discloses: permitting user entry of one or more scenario parameters and candidate decision parameters (column 6, lines 44-64; column 7, line 66, through column 8, line 25; column 46, line 46, through column 47, line 8).

As per **Claim 81**, Eder further discloses: permitting user entry of one or more scenario parameters and candidate decision parameters by means of one or more graphically-displayed controls (column 7, line 66, through column 8, line 25).

As per **Claim 89**, Eder further discloses: applying a statistical-simulation technique (column 46, lines 32-45).

As per **Claim 90**, Eder further discloses: wherein the statistical-simulation technique is a Monte Carlo simulation (column 46, lines 32-45).

As per **Claim 99**, Eder further discloses: permitting a user to interactively specify the one or more analyses to perform (column 46, line 46, through column 47, line 8).

As per **Claim 100**, Eder further discloses: wherein the analyses include one or more tabular reports summarizing changes in entity attribute parameter values over one or more future time instants (Figure 14; column 46, line 46, through column 47, line 8).

As per **Claim 101**, Eder further discloses: wherein the analyses permit comparison of entity attribute parameter values over one or more future time instants across simulation runs of different candidate decisions under alternative scenarios (Figure 14; column 6, lines 44-64; column 46, lines 20-31; column 46, line 46, through column 47, line 8).

As per **Claim 102**, Eder further discloses: wherein at least one intervention is a strategy for influencing a scenario in a desired manner (column 6, lines 44-64; column 46, line 46, through column 47, line 8).

As per **Claim 103**, Eder further discloses: wherein at least one intervention is a strategy not to influence the alternative scenario parameters (column 46, line 46, through column 47, line 8).

As per **Claims 106 and 113-114**, Eder discloses:

- a computer-implemented method of (or a computer system for) constructing a decision-support application for a decision domain (column 6, lines 44-64; column 46, line 46, through column 47, line 8);

- (means for) constructing a model of a decision domain for creating a plurality of scenarios in the decision domain, the decision model comprising a plurality of decision model entity classes (column 6, lines 44-64; column 46, line 46, through column 47, line 8; decision-model entity classes here are items that define a given future simulation);

- (means for) creating specifications for linking the plurality of decision-model entity classes to a decision-support simulator framework (column 5, line 31, through column 6, line 25; the mathematical model here makes that linkage);

- (means for) populating an application database for the decision domain based on the plurality of decision-model entity classes (column 5, lines 16-30; the system draws in the data it will need);

- (means for) compiling the application database and the specifications to generate a decision-support application that is executable under the decision-support simulator framework (column 5, lines 16-30; column 5, line 31, through column 6, line 25; column 6, lines 44-64; column 9, line 41, through column 10, line 15; column 46, line 46, through column 47, line 8);

- a machine-readable medium, having encoded thereon program code, wherein, when the program code is executed by a machine, the machine implements a method for constructing a decision-support application for a decision domain (column 6, lines 44-64; column 7, line 66, through column 8, line 25; column 46, line 46, through column 47, line 8; column 9, line 41, through column 10, line 14).

As per **Claim 107**, Eder further discloses: wherein the plurality of decision-model entity classes comprising a scenario class have a plurality of associated classes, each entity class further defined by one or more entity attributes characterizing one or more of the entities in the scenario class, one or more relationship attributes representing relationships between one or more entities in the scenario class, and one or more class interfaces defining methods representing entity

behaviors and dynamic interactions (column 5, line 31, through column 6, line 25; column 46, line 46, through column 47, line 8).

As per **Claim 108**, Eder further discloses: wherein the decision-model entity classes are types defined by one or more object-oriented programming languages (column 9, line 41, through column 10, line 15).

As per **Claim 109**, Eder further discloses: wherein the one or more object-oriented programming languages include C++ (column 9, line 41, through column 10, line 15).

As per **Claim 110**, Eder further discloses: providing a software development environment for a user to create the application-specific decision model (column 46, line 46, through column 47, line 8).

As per **Claim 112**, Eder further discloses: creating one or more application-specific reports for organizing simulation output, wherein the compiling step comprises compiling the one or more application-specific reports (Figure 14; column 46, line 46, through column 47, line 8).

As per **Claims 115 and 120-121**, Eder discloses:

- a computer-implemented method of (or a computer system for) supporting decision-making (column 6, lines 44-64);

- (means for) generating, based on user input, a plurality of alternative scenarios representing possible evolutions of a baseline scenario (column 46, lines 20-31; column 46, lines 32-45; column 46, line 46, through column 47, line 8; the baseline scenario is the business's current state);

- (means for) generating, based on user input, a plurality of strategies for influencing the alternative scenarios (column 46, lines 20-31; column 46, lines 32-45; column 46, line 46, through column 47, line 8; the strategies must have been generated to be tested);

- (means for) simulating outcomes of each of the strategies for each of the alternative scenarios over time (to permit comparison of the simulated outcomes) (column 46, lines 20-31; column 46, lines 32-45; column 46, line 46, through column 47, line 8);

- (means for) providing output data, based on the simulated outcomes, to permit comparison of the simulated outcomes for each of the strategies (column 6, lines 44-64; column 46, lines 20-31; column 46, lines 32-45; column 46, line 46, through column 47, line 8; reports can be compared for various simulations);

- a machine-readable medium, having encoded thereon program code, wherein, when the program code is executed by a machine, the machine implements a method of supporting decision-making (column 7, line 66, through column 8, line 25; column 9, line 41, through column 10, line 14).

As per **Claim 116**, Eder further discloses: wherein the outcomes include one or more performance metrics to permit selection of an optimal strategy, and wherein the outputting step

further comprises outputting one or more performance metrics (column 46, line 46, through column 47, line 8).

As per **Claim 119**, Eder further discloses: wherein the decision domain is competitive strategy (column 6, lines 44-64; column 46, line 46, through column 47, line 8).

Claim Rejections - 35 USC § 103

11. Claims 69-70 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eder in view of Honarvar et al., U.S. Patent No. 6,405,173 B1.

As per **Claim 69**, Eder further discloses: wherein the attribute parameters include numeric characteristics of scenario entities (column 46, line 46, through column 47, line 8). Eder fails to disclose wherein characteristics of scenario entities are qualitative. Honarvar et al. discloses wherein characteristics of scenario entities are qualitative (column 6, lines 27-46; column 8, lines 48-49; column 1, lines 46-51; "the present invention relates to a decision management system providing simulation for qualitative client assessment"). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify the invention of Eder such that characteristics of scenario entities are qualitative, as disclosed by Honarvar et al. Motivation is provided in that it was well-known to a person of ordinary skill in the art at the time of applicant's invention that numbers alone cannot always fully describe a situation.

As per **Claim 70**, Eder further discloses: wherein the attribute parameters are permitted to assume values of real numbers (column 46, line 46, through column 47, line 8).

12. Claims 71-72 and 111 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eder in view of Kramer et al., U.S. Patent No. 6,327,574 B1.

As per **Claim 71**, Eder fails to disclose wherein attribute parameters have descriptive metadata for annotations. Kramer et al. discloses wherein attribute parameters have descriptive metadata for annotations (column 5, lines 46-61; information being user-specified was addressed in the rejection for claim 64). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify the invention of Eder such that attribute parameters have descriptive metadata for annotations, as disclosed by Kramer et al. Kramer et al. provides motivation in that metadata is useful for telling a system how to use related data (column 5, lines 46-61).

As per **Claim 72**, Eder fails to disclose wherein the metadata includes references to the data sources of the values. Kramer et al. further discloses wherein the metadata includes references to the data sources of the values (column 12, lines 35-43; information being user-specified was addressed in the rejection for claim 64). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify the invention of Eder as modified in the rejection for claim 71 such that the metadata includes references to the data sources of the values, as disclosed by Kramer et al. Kramer et al. implicitly provides motivation

in that the metadata including reference to the data sources of the values allows for that information to be communicated (column 12, lines 35-43).

As per **Claim 111**, Eder further discloses: using an automated code generator to generate code embodying the relational schema from entity type specifications, and editing and executing the code to generate relational schema for the application-specific model (column 5, lines 16-30; column 9, line 41, through column 10, line 15; column 46, line 46, through column 47, line 8). Eder fails to disclose incorporating metadata in the invention. Kramer et al. discloses incorporating metadata in the invention (column 5, lines 46-61). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify the invention of Eder such that it incorporates metadata in the invention, as disclosed by Kramer et al. Kramer et al. provides motivation in that metadata is useful for telling a system how to use related data (column 5, lines 46-61).

13. Claim 82 is rejected under 35 U.S.C. 103(a) as being unpatentable over Eder in view of Huang et al., U.S. Patent No. 5,953,707. Eder further discloses: storing baseline scenario parameters (column 5, lines 16-30; column 6, lines 44-64); permitting user entry of alternative scenario parameters (column 6, lines 44-64). Eder fails to disclose copying baseline or alternative scenarios and altering one or more of the copied scenario parameters. Huang et al. discloses copying baseline or alternative scenarios and altering one or more of the copied scenario parameters (column 104, line 63, through column 105, line 14; column 107, line 59, through column 108, line 4). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify the invention of Eder such that it allows the user to copy

baseline or alternative scenarios and alter one or more of the copied scenario parameters, as disclosed by Huang et al. Huang et al. provides motivation in that such copying and altering allows the user to create new scenarios (column 107, line 59, through column 108, line 4).

14. Claims 83-85, 87, and 117 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eder.

As per **Claim 83**, Eder further discloses permitting automated import of information from one or more external sources (column 5, line 31, through column 6, line 25; column 7, line 66, through column 8, line 25; information being scenario parameters and candidate decision parameters was addressed in the rejection for claim 64; Eder does not discuss the automated import of scenario parameters and candidate decision parameters). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify the invention of Eder such that it permits automated import of one or more scenario parameters and candidate decision parameters from one or more external sources; in doing so, it would be permitting automated import of information from one or more external sources, as disclosed by Eder. Eder provides motivation in that automated import of information eliminates time-consuming and expensive effort (column 5, lines 16-30).

As per **Claim 84**, Eder further discloses: wherein the one or more external sources includes an interface to a database (column 7, line 66, through column 8, line 25).

As per **Claim 85**, Eder further discloses: wherein the one or more external sources includes one or more files in a common data exchange format (column 7, line 66, through column 8, line 25).

As per **Claim 87**, Eder further discloses: scenario parameters and candidate decision parameters (column 5, line 31, through column 6, line 25; column 6, lines 44-64; column 46, line 46, through column 47, line 8); a library of previously stored scenario entities (column 46, lines 32-45; column 46, line 46, through column 47, line 8). Eder further discloses permitting automated import of information (column 7, line 66, through column 8, line 25; Eder does not discuss the automated import of scenario parameters and candidate decision parameters). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify the invention of Eder such that it permits automated import of one or more scenario parameters and candidate decision parameters from a library of previously stored scenario entities; in doing so, it would be permitting automated import of information, as disclosed by Eder. Eder provides motivation in that automated import of information eliminates time-consuming and expensive effort (column 5, lines 16-30).

As per **Claim 117**, Eder fails to disclose wherein an optimal strategy is a strategy that displays superior values of performance metrics across the plurality of alternative scenarios. However, that element/limitation was well-known in the art at the time of applicant's invention (the optimal strategy is general regarded to be the strategy that is predicted to be the most successful). It would have been obvious to one of ordinary skill in the art at the time of

applicant's invention to modify the invention of Eder such that an optimal strategy is a strategy that displays superior values of performance metrics across the plurality of alternative scenarios, as was well-known in the art at the time of applicant's invention. Motivation is provided in that it was well-known to a person of ordinary skill in the art at the time of applicant's invention that this is generally believed to be an accurate method of determining optimal strategy.

15. Claim 86 is rejected under 35 U.S.C. 103(a) as being unpatentable over Eder in view of Kim et al., U.S. Patent Application Publication No. US 2002/0065701 A1. Eder fails to disclose wherein the common data exchange format is an extensible markup language (XML) document format. Kim et al. discloses wherein the common data exchange format is an extensible markup language (XML) document format (paragraph [0182]). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify the invention of Eder as modified in the rejection for claim 85 such that the common data exchange format is an extensible markup language (XML) document format, as disclosed by Kim et al. Kim et al. provides motivation in that XML allows information to be exchanged among various systems (paragraph [0182]).

16. Claims 88 and 93 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eder in view of Steinman, U.S. Patent No. 5,850,538.

As per **Claim 88**, Eder fails to disclose applying a parallel discrete-event simulation technique. Steinman discloses applying a parallel discrete-event simulation technique (column 1, lines 19-40). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify the invention of Eder such that it applies a parallel discrete-event

simulation technique, as disclosed by Steinman. Steinman provides motivation in that it mentions a parallel discrete-event simulation technique as one type of simulation technique that could be chosen to perform a simulation (column 1, lines 19-40).

As per **Claim 93**, Eder fails to disclose applying an event-based simulation technique. Steinman discloses applying an event-based simulation technique (column 1, lines 19-40). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify the invention of Eder such that it applies an event-based simulation technique, as disclosed by Steinman. Steinman provides motivation in that it mentions an event-based simulation technique as one type of simulation technique that could be chosen to perform a simulation (column 1, lines 19-40).

17. Claims 91 and 95-96 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eder in view of Bonabeau, U.S. Patent Application Publication No. US 2001/0053991 A1.

As per **Claim 91**, Eder fails to disclose applying a system dynamics simulation technique. Bonabeau discloses applying a system dynamics simulation technique (paragraphs [0057]-[0058]). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify the invention of Eder such that it applies a system dynamics simulation technique, as disclosed by Bonabeau. Bonabeau provides motivation in that it describes system dynamics simulation as an appropriate choice for a business simulation (paragraphs [0057]-[0058]).

As per **Claim 95**, Eder fails to disclose applying a combination of two or more simulation techniques in projecting scenario dynamics. Bonabeau discloses applying a combination of two or more simulation techniques in projecting scenario dynamics (paragraphs [0057]-[0058]). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify the invention of Eder such that it applies a combination of two or more simulation techniques in projecting scenario dynamics, as disclosed by Bonabeau. Bonabeau provides motivation in that it describes using a combination of simulations as an appropriate choice for a business simulation (paragraphs [0057]-[0058]).

As per **Claim 96**, Eder fails to disclose wherein a simulation step is performed by a framework containing a set of simulation techniques and adapted to receive and use one or more new simulation techniques performed based on simulation technique parameters specified by a user. Bonabeau discloses wherein a simulation step is performed by a framework containing a set of simulation techniques and adapted to receive and use one or more new simulation techniques performed based on simulation technique parameters specified by a user (paragraphs [0057]-[0058]). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify the invention of Eder such that a simulation step is performed by a framework containing a set of simulation techniques and adapted to receive and use one or more new simulation techniques performed based on simulation technique parameters specified by a user, as disclosed by Bonabeau. Bonabeau provides motivation in that it describes using a combination of simulations as an appropriate choice for a business simulation (paragraphs [0057]-[0058]).

18. Claim 92 is rejected under 35 U.S.C. 103(a) as being unpatentable over Eder in view of Eicher, Jr. et al., U.S. Patent Application Publication No. US 2002/0099598 A1. Eder fails to disclose applying a complex adaptive system technique. Eicher, Jr. et al. discloses applying a complex adaptive system technique (paragraph [0137]). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify the invention of Eder such that it applies a complex adaptive system technique, as disclosed by Eicher, Jr. et al. Eicher, Jr. et al. provides motivation in that it describes complex adaptive system technique as an appropriate choice for a predictive analysis (paragraph [0137]).

19. Claim 94 is rejected under 35 U.S.C. 103(a) as being unpatentable over Eder in view of Ball et al., U.S. Patent No. 6,212,502 B1. Eder fails to disclose using a Bayesian inference technique to compound conditional probabilities. Ball et al. discloses using a Bayesian inference technique to compound conditional probabilities (column 2, line 16, through column 4, line 4; column 12, lines 5-21). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify the invention of Eder such that it uses a Bayesian inference technique to compound conditional probabilities, as disclosed by Ball et al. Ball et al. provides motivation in that it discusses the use of Bayesian techniques in decision-support systems (column 2, line 16, through column 4, line 4; column 12, lines 5-21).

20. Claim 97 is rejected under 35 U.S.C. 103(a) as being unpatentable over Eder in view of Watanabe et al., U.S. Patent No. 5,761,486. Eder fails to disclose permitting a user to monitor the progress of the simulation in real time. Watanabe et al. discloses permitting a user to monitor the progress of the simulation in real time (column 3, lines 10-55). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify the invention of

Eder such that it permits a user to monitor the progress of the simulation in real time, as disclosed by Watanabe et al. Motivation is provided in that it was well-known to a person of ordinary skill in the art at the time of applicant's invention that a real-time function has the benefit of no time delays.

21. Claim 98 is rejected under 35 U.S.C. 103(a) as being unpatentable over Eder in view of Clarisse, U.S. Patent No. 5,247,651, in further view of Watanabe et al. Eder fails to disclose permitting a user to pause simulations, interactively change scenario, and resume simulations. Clarisse discloses permitting a user to pause simulations, interactively change scenario, and resume simulations (column 4, lines 51-60; scenario and decision parameters were addressed in claim 64). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify the invention of Eder such that it permits a user to pause simulations, interactively change scenario, and resume simulations, as disclosed by Clarisse. Clarisse provides motivation in that such a function allows the user to be able to alter a scenario and immediately view the results of that alteration (column 4, lines 51-60).

Eder and Clarisse fail to disclose inspecting simulation information during the simulation. Watanabe et al. discloses inspecting simulation information during the simulation (column 3, lines 10-55). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify the invention of Eder as modified above in this rejection such that it permits the user to inspect simulation information during the simulation, as disclosed by Watanabe et al. Motivation is provided in that it was well-known to a person of ordinary skill in the art at the time of applicant's invention that a real-time function has the benefit of no time delays.

22. Claim 118 is rejected under 35 U.S.C. 103(a) as being unpatentable over Eder in view of Abu El Ata, U.S. Patent No. 6,990,437 B1. Eder fails to disclose changing and refining the plurality of strategies based on comparisons of the strategies and the projected outcomes of the strategies. Abu El Ata discloses changing and refining the plurality of strategies based on comparisons of the strategies and the projected outcomes of the strategies (column 3, lines 25-44). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify the invention of Eder such that it changes and refines the plurality of strategies based on comparisons of the strategies and the projected outcomes of the strategies, as disclosed by Abu El Ata. Abu El Ata provides motivation in that that step is one step of an optimization process (column 3, lines 25-44).

Eder fails to disclose updating the alternative scenarios based on the simulated results of the selected optimal strategy. Abu El Ata further discloses updating the alternative scenarios based on the simulated results of the selected optimal strategy (column 3, lines 25-44). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify the invention of Eder as modified above in this rejection such that it updates the alternative scenarios based on the simulated results of the selected optimal strategy, as disclosed by Abu El Ata. Abu El Ata provides motivation in that that step is one step of an optimization process (column 3, lines 25-44).

Eder fails to disclose simulating results of each of an updated plurality of strategies based on the updated alternative scenarios. Abu El Ata further discloses simulating results of each of an updated plurality of strategies based on the updated alternative scenarios (column 3, lines 25-44). It would have been obvious to one of ordinary skill in the art at the time of applicant's

invention to modify the invention of Eder as modified above in this rejection such that it simulates results of each of an updated plurality of strategies based on the updated alternative scenarios, as disclosed by Abu El Ata. Abu El Ata provides motivation in that that step is one step of an optimization process (column 3, lines 25-44).

Conclusion

23. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

24. **Examiner's Note:** Examiner has cited particular portions of the references as applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested that the applicant, in preparing the responses, fully consider the references in entirety as potentially

teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the examiner.

25. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nathan Erb whose telephone number is (571) 272-7606. The examiner can normally be reached on Mondays through Fridays, 8:30 AM to 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Hayes can be reached on (571) 272-6708. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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nhe

JOHN W. HAYES
SUPERVISORY PATENT EXAMINER